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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte RAVI SUBRAMANIAN, UMA JHA, and JOEL D. MEDLOCK

Appeal 2007-3205
Application 09/772,584[1]
Technology Center 2100

Decided: May 5, 2008

Before JOSEPH L. DIXON, HOWARD B. BLANKENSHIP, and CAROLYN D. THOMAS, *Administrative Patent Judges*.

THOMAS, C., *Administrative Patent Judge*.

DECISION ON APPEAL

I. STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134 from a Final Rejection of claims 1-16 and 51-66 entered November 5, 2004. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

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[1] Application filed January 29, 2001. The real party in interest is Infineon Technologies AG.

A. INVENTION

Appellants invented a system and computer readable medium that provides a wireless spread spectrum communication platform for processing a communication signal. The wireless communication platform includes a first computing element, a second computing element, and a reconfigurable interconnect. (Spec., Abstract.)

B. ILLUSTRATIVE CLAIM

Claims 1-98 are pending in the application, with claims 1-16 and 51-66 on appeal. Claims 1 and 51 are independent claims. Claims 17-50 and 67-98 are withdrawn. Claim 1 is illustrative:

> 1. In a processor having a plurality of kernel planes with a plurality of kernels for processing data in a communication device, at least one kernel of the plurality of kernels comprising:
>
> an interface adapted to receive and transmit information from the at least one kernel;
>
> a satellite kernel coupled to the interface, the satellite kernel performing a discrete class of operations within a communications application; and
>
> a local controller coupled to the interface and the satellite kernel, and the local controller permitting the at least one kernel to operate autonomously with respect to the other of the plurality of kernels.

C. REFERENCE

The single reference relied upon by the Examiner in rejecting the claims on appeal is as follows:

Sharrit	US 5,999,990	Dec. 7, 1999

D. REJECTION

The Examiner entered the following rejection which is before us for review:

Claims 1-16 and 51-66 are rejected under 35 U.S.C. § 102(e) as being anticipated by Sharrit.

II. PROSECUTION HISTORY

Appellants appealed from the Final Rejection and filed an amended Appeal Brief (App. Br.) on December 13, 2006. The Examiner mailed an Examiner's Answer (Ans.) on February 23, 2007. Appellants filed a Reply Brief (Reply Br.) on March 20, 2007.

III. ISSUE

Whether Appellants have shown that the Examiner erred in rejecting claims 1-16 and 51-66 as being anticipated by Sharrit.

IV. FINDINGS OF FACT

The following findings of fact (FF) are supported by a preponderance of the evidence.

Sharrit

1. Sharrit discloses that "[e]ach of RRUs **13** [reconfigurable resource units] includes signal processing functionality for processing signals on the signal bus **14**." (Col. 2, ll. 35-36.)

2. Sharrit discloses that "the RRUs **12*a*-12*n*** can each include any type of processing device . . . For example, as illustrated in Fig. **2**, an RRU

52 can include a digital signal processor (DSP) **42** coupled to a random access memory (RAM) **44**. The DSP **42** is coupled to controller **16** for receiving, among other things, processing commands instructing the DSP **42** how to process a signal presently on signal bus **14**." (Col. 5, ll. 33-41.)

3. Sharrit discloses that "the RRU **52** can include a mass storage unit, such as a hard disk drive (HDD) **46**, for storing a library of programs that can be executed in the DSP **42**. When the DSP **42** receives a processing command from the controller **16**, it can transfer an appropriate program file from HDD **46** into RAM **44** for use in processing a signal from signal bus **14**." (Col. 5, ll. 46-52.)

4. Sharrit discloses that "an RRU **54** includes a general purpose processor (GPP) 48 and a field programmable gate array (FPGA) **50**." (Col. 5, ll. 58-60.)

V. PRINCIPLES OF LAW

"[A]nticipation of a claim under § 102 can be found only if the prior art reference discloses every element of the claim . . . ." *In re King*, 801 F.2d 1324, 1326 (Fed. Cir. 1986) (citing *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1458 (Fed. Cir. 1984)). "[A]bsence from the reference of any claimed element negates anticipation." *Kloster Speedsteel AB v. Crucible, Inc.*, 793 F.2d 1565, 1571 (Fed. Cir. 1986).

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros., Inc. v. Union Oil Co. of California*, 814

F.2d 628, 631 (Fed. Cir. 1987). Analysis of whether a claim is patentable over the prior art under 35 U.S.C. § 102 begins with a determination of the scope of the claim. We determine the scope of the claims in patent applications not solely on the basis of the claim language, but upon giving claims their broadest reasonable construction in light of the specification as it would be interpreted by one of ordinary skill in the art. *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004). The properly interpreted claim must then be compared with the prior art.

VI. ANALYSIS

Grouping of Claims

In the amended Brief, Appellants argue claims 1-16 and 51-66 as a group (App. Br. 5-8). Thus, the Board selects illustrative claim 1 to decide the appeal for this group. Accordingly, the remaining claims in this group stand or fall with claim 1. *See* 37 C.F.R. § 41.37(c)(1)(vii). *See also In re Young,* 927 F.2d 588, 590 (Fed. Cir. 1991).

The Anticipation Rejection

Claims are given their broadest reasonable construction "in light of the specification as it would be interpreted by one of ordinary skill in the art." *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004).

To determine whether Sharrit anticipates claims 1-16 and 51-66, we must first determine the scope of the claims. Our reviewing court stated in *Phillips v. AWH Corp.*, 415 F.3d 1303, 1315 (Fed. Cir. 2005), *cert. denied*,

sub nom. AWH Corp. v Phillips, 126 S. Ct. 1332 (2006):

> The claims, of course, do not stand alone. Rather, they are part of "a fully integrated written instrument," *Markman*, 52 F.3d at 978, consisting principally of a specification that concludes with the claims. For that reason, claims "must be read in view of the specification, of which they are a part." *Id.* at 979. As stated in *Vitronics*, the specification "is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term." 90 F.3d at 1582.

Initially, we note that Appellants in essence argue that Sharrit's local controller needs a system processor in conjunction with its general purpose processor (GPP). In other words, Appellants specifically argue that "[t]here is no suggestion in Sharrit that the GPP [general purpose processor] performs local controller functions. All control must be centralized in the controller 16" (App. Br. 7). For this reason, Appellants contend that Sharrit fails to disclose *"a local processor that operates autonomously with respect to the other of the plurality of kernels."*

As noted above, during patent prosecution, claims are construed as broadly as is reasonable. Hence, the claimed *"operate autonomously with respect to the other of the plurality of kernels"* reads on any operation performed independently from the other plurality of kernels, not necessarily independently from *any* circuitry outside of the computing element, i.e., not independently of a system processor. Thus, we find that what is required is that the local controller in one kernel operates independently from the other kernels.

"Having construed the claim limitations at issue, we now compare the claims to the prior art to determine if the prior art anticipates those claims." *In re Cruciferous Sprout Litig.*, 301 F.3d 1343, 1349 (Fed. Cir. 2002).

Appellants contend that "Sharrit does not teach, or even suggest, a kernel having a local controller that permits the kernel to operate autonomously with respect to other of a plurality of kernels" (App. Br. 6; Reply Br. 2).

The Examiner found that Sharrit discloses a DSP (digital signal processor) that processes a signal from the signal bus 14 by executing one or more software programs stored in RAM 44 (Ans. 6). The Examiner further found that Sharrit discloses that "the GPP 48 delivers a control signal to FPGA [field programmable gate array] 50 instructing it to read the signal on signal bus 14 and to process the signal in an appropriate area of the cell array. *Id.* Furthermore, the Examiner found that in Sharrit, the signal is individually processed by separate RRUs [reconfigurable resource units] one after the other. *Id.* We endorse and adopt the Examiner's findings.

As such, we do not find that Appellants have shown error in the Examiner's rejection of illustrative claim 1. Instead, we find that although Sharrit's controller 16 is operative for controlling the operation and configuration of the plurality of RRUs (Sharrit, col. 2, ll. 51-53), Sharrit also discloses a local controller, i.e., DSP/GPP, that permits a kernel to operate autonomously with respect to the other of the plurality of kernels.

For example, Sharrit further discloses that each RRU includes signal processing functionality for processing signals on the signal bus, such as a DSP, a HDD (hard disk drive), a GPP and/or a FPGA (FF 1-4). Thus, we

find that Sharrit's RRUs possess the necessary hardware to operate autonomously with respect to other kernels.

Appellants further contend that "[i]n order for the GPP to perform local controller functions and do resource allocation, it would need to obtain information from the DSP [digital signal processor] and/or FPGA [field programmable gate array]. Since information is transmitted only from the GPP to the DSP and/or the FPGA and not the reverse (as indicated by the single-headed arrow), the GPP can not know how loaded the DSP is. Only through the local controller 16 can the GPP know this information" (App. Br. 7).

We remind Appellants that the *claims* measure the invention. *See SRI Int'l v. Matsushita Elec. Corp.*, 775 F.2d 1107, 1121 (Fed. Cir. 1985) (en banc). Our reviewing court has repeatedly warned against confining the claims to specific embodiments described in the specification. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005) (en banc). During prosecution before the USPTO, claims are to be given their broadest reasonable interpretation, and the scope of a claim cannot be narrowed by reading disclosed limitations into the claim. *See In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997); *In re Zletz*, 893 F.2d 319, 321 (Fed. Cir. 1989); *In re Prater*, 415 F.2d 1393, 1404-05 (CCPA 1969). "An essential purpose of patent examination is to fashion claims that are precise, clear, correct, and unambiguous. Only in this way can uncertainties of claim scope be removed, as much as possible, during the administrative process." *In re Zletz*, 893 F.2d at 322.

The claim terminology of claim 1, under a broad but reasonable interpretation, does not require that the GPP (i.e., local controller) know how loaded the DSP is. Again, what is required is that a local controller permits one kernel to operate autonomously with respect to the others.

As to the other recited elements of claim 1, Appellants provide no argument to dispute that the Examiner has correctly shown where all these claimed elements appear in the prior art. Thus, we deem any such arguments waived. *See* 37 C.F.R. § 41.37(c)(1)(vii) (2004).

Therefore, we do *not* find that Appellants have shown error in the Examiner's rejection of illustrative claim 1. Since we find the Examiner has set forth a sufficient initial showing of anticipation, we affirm the rejection of independent claim 1 and of claims 2-16 and 51-66, which fall therewith.

VII. CONCLUSIONS

We conclude that Appellants have *not* shown that the Examiner erred in rejecting claims 1-16 and 51-66.

Thus, claims 1-16 and 51-66 are not patentable.

VIII. DECISION

In view of the foregoing discussion, we affirm the Examiner's rejection of claims 1-16 and 51-66.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv)(2006).

AFFIRMED

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